REMARKS

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

In the specification, the name of compound 7.4.176 is amended to indicate that the trifluoromethoxy substitution of the N4-phenyl is attached at the 4-position, rather than the 3-position. Support for this amendment can be found in the description of the synthesis of the compound, immediately adjacent to the name in the table.

The specification is also amended to correct typographicals error in the names of compounds 7.4.416 and 7.4.417. In each case, the specification is amended to refer to N2-(indazolin-6-yl) rather than N4-(indazolin-6-yl) in both the compound name and in the description of the synthesis of the compound. Support for this amendment can be found in the NMR data characterizing each of the compounds, which data can be found at the end of the description of the synthesis of the compounds, and in compound 7.4.149, the compound from which these salts were prepared. No new matter is added by correction of these typographical errors.

Claims 2-8, 30-31, 35-38, 42 and 44 are canceled without prejudice to pursuing equivalent subject matter in subsequent proceedings. Claim 41 previously was canceled.

Claims 1, 9, 10, 14-19, 21, 24, 25, 29, 32, 34, 39 and 43 currently are amended.

Claim 1 is amended to include limitations from dependent claims 43 and 44, focusing on particular autoimmune diseases. Claim 1 is amended to focus on those embodiments in which L^1 and L^2 are each a direct bond and R^6 is hydrogen. Support for this amendment can be found at page 30, line 27 to page 31, line 2 and page 41, lines 21-33, respectively. Claim 1 also is amended to focus on embodiments in which R^5 is as disclosed on page 41, lines 25-29. Claim 1 further is amended to focus on compounds that comprise substituted phenyl or optionally substituted heteroaryl at R^2 and R^4. Support for this amendment can be found at page 34, line 1

to page 40, line 30, especially page 34, lines 10-14. In claim 1, the definition of R^8 is amended to refer to R^c in place of R^a. The definitions of R^a and R^c are identical with the exception that R^c cannot be hydrogen. This amendment is to clarify that R^8, as a substitution of another moiety (such as R^2 or R^4), cannot be hydrogen. If R^8 were permitted to be hydrogen, the substitution would effectively not occur. Finally, those provisos that would be redundant in view of the amendments described above are deleted.

Claims 9, 10, 14-16, 29, and 32 are amended to remove reference to canceled claim 8.

Claim 9 is amended to correct a typographical error in benzotriazol-(4, 5, 6 or 7)-yl. Claim 9 also is amended to bring the claim into correspondence with the amendments to claim 1.

Claims 10 and 16 are amended to restate the language in clearer terms. The scope of claim 10 and 16 is not altered by these amendments. Claim 10 is amended to delete reference to divalent moiety, sulfonyl, as a potential substitution at monovalent position Z. Finally, claim 10 also is amended to recite that R^9 and R^{10} and/or R^{11} and R^{12} can together form an oxo group. Support for this amendment can be found in the specification at page 3, lines 9-22. It would be commonly understood by a chemist of ordinary skill that a ketal (hydrated ketone) and its corresponding ketone (a carbon with an oxo group) exist in equilibrium, typically favoring formation of the ketone, particularly in aqueous solutions. Accordingly, recitation of "oxo group" more clearly identifies the compound in its preferred form.

Claims 16, 17, 18, 21 and 24 are amended to remove reference to an optionally substituted phenyl, consistent with the amendments made to claim 1. Claim 19 is amended to clarify that the *ortho*, *meta* or *para* substitutions refer to an R^4 phenyl.

Claims 29 and 32 are amended to refer, in proper Markush format, to the salts, hydrates solvates and N-oxides encompassed by the claim. This amendment does not change the scope of the claims and adds no new matter.

Claim 34 is amended to correct a typographical error in the reference to R^{18}. Support for this amendment can be found in claim 32.

Claim 39 is amended to provide the full chemical name of each of the compounds previously referred to simply by an alphanumeric identifier. Support for the amendments can be found throughout the specification, particularly in the Examples section.

Claim 40 is amended to clarify the antecedent basis for the term "compound."

Claim 43 is amended to correspond to amendments made to claim 1. No new matter is added by this amendment.

Claim 49 is added. Support for new claim 49 can be found in the examples section of the specification.

This amendment adds, changes and deletes claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier.

After amending the claims as set forth above, claims 1, 9-29, 32-34, 39, 40, 43, and 45-49 are now pending in this application.

Rejections under 35 U.S.C. § 102

Claims 1-9, 14, 16-20, 32, 35-37, 40, 42, 43, 45 and 47 stand rejected under 35 U.S.C. § 102(a) as being anticipated by **Pease et al.** (WO 01/64656). The Office Action asserts that "Pease et al. disclose Applicants' claimed 2,4-pyrimidinediamine compounds, (pages 31-43, Examples 1-41), as being effective in a method for treating autoimmune diseases and rheumatoid arthritis, (page 2, lines 6-7 and 5)." Applicant respectfully submits that the cited Pease et al. reference does not disclose every element of claim 1, as amended (and by extension of any of the claims which depend from claim 1). Claims 2-8, 35-37, and 42 are canceled rendering the rejection moot as it relates to these claims.

As amended, claim 1 recites that R^5 (at the 5-position of the pyrimidine ring) is selected from the group consisting of –CN, -NC, $-NO_2$, fluoro, (C1-C3) haloalkyl, (C1-C3) perhaloalkyl, (C1-C3) haloalkoxy, (C1-C3) perhaloalkoxy, $-C(O)R^a$, $-C(O)OR^a$, $-C(O)CF_3$ and $-C(O)OCF_3$. Pease et al. describes 2,4-pyrimidinediamine compounds that are substituted at the 5-position of the pyrimidine ring with a bromo or chloro group. None of the compounds recited in the instant claim permit a bromo or chloro group at the 5-position of the pyrimidine ring. For this reason alone, the cited reference does not anticipate any of claims 1, 9, 14, 16-20, 32, 40, 43, 45 and 47, as amended. Applicant requests withdrawal of the rejection.

Claims 1-26, 28, 35, 36, 40, 42, 43 and 45-48 stand rejected under 35 U.S.C. § 102(a) as being anticipated by **Armistead et al.** (WO 01/60816). Claims 2-8, 35, 36, and 42 are canceled, rendering the rejection moot as to these claims. Claim 1 is amended to recite that R^5 is selected from the group consisting of –CN, -NC, $-NO_2$, fluoro, (C1-C3) haloalkyl, (C1-C3) perhaloalkyl, (C1-C3) haloalkoxy, (C1-C3) perhaloalkoxy, $-C(O)R^a$, $-C(O)OR^a$, $-C(O)CF_3$ and $-C(O)OCF_3$. Armistead et al. discloses various 2,4-pyrimidinediamine compounds, all of which are unsubstituted at both the 5- and 6-positions of the pyrimidine ring. As amended, claim 1 does not permit a hydrogen at R^5, which is at the 5-position of the pyrimidine ring. Accordingly, Applicant submits that Armistead et al. cannot anticipate any of claims 1, 9-26, 28, 40, 43 and 45-48, as amended, because the reference fails to disclose each and every element of the claims. Applicant request withdrawal of the rejection

Claims 1-9, 14-26, 28-33, 35-40, 42-43, 45 and 47 stand rejected under 35 U.S.C. § 102(b) as being anticipated by **Bradbury et al.** (WO 00/39101, misidentified in the Office Action as WO 01/39101). Claims 2-8, 30, 31, 35-38, and 42 are canceled rending the rejection moot as to these claims. Claim 1 is amended to recite that

(i) R^2 is selected from the group consisting of phenyl mono-substituted at the 3- or 5-position with an R^8 group, phenyl di- or tri-substituted with one or more of the same or different R^8 group, and 5-15 membered heteroaryl optionally substituted with one or more of the same or different R^8 groups;

(ii) R^4 is selected from the group consisting of phenyl substituted with one or more of the same or different R^8 groups and 5-15 membered heteroaryl optionally substituted with one or more of the same or different R^8 groups; and

(iii) R^5 is selected from the group consisting of –CN, -NC, $-NO_2$, fluoro, (C1-C3) haloalkyl, (C1-C3) perhaloalkyl, (C1-C3) haloalkoxy, (C1-C3) perhaloalkoxy, $-C(O)R^a$, $-C(O)OR^a$, $-C(O)CF_3$ and $-C(O)OCF_3$.

Bradbury et al. discloses 2,4-pyrimidinediamine compounds that include a *para*-substituted phenyl group on the N2-nitrogen (see Examples 2-43, 45-85, 94-103, 111-132, 134, 135, 137-158, 162-178, 185-192, and 195-223 of Bradbury et al.), an unsubstituted phenyl group on the N4-nitrogen (see Examples 86-93, 104-109, 136, 179-184, 193, 194, and 224-234) and/or a bromo group at the 5-position of the pyrimidine ring (see Examples 1, 44 and 133). In the compounds for use in the method of claim 1, when R^2 (at the N2-position) is a mono-substituted phenyl, it is substituted at the *meta* position (i.e., the 3- or 5- position). When R^4 is a phenyl, it is either mono-, di- or tri-substituted. Moreover, as mentioned above, the compounds used in the claims do not include a bromo substituent at the 5-position of the central pyrimidine ring.

Rejections under 35 U.S.C. § 103

Claims 1-26, 28-33, 35-40 and 42-48 stand rejected under 35 U.S.C. § 103 as being unpatentable over any one of Pease et al., Armistead et al., or Bradbury et al.

To establish a *prima facie* case of obviousness, three basic criteria must be met:

(1) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings.

(2) there must be a reasonable expectation of success.

(3) the prior art references, when combined, must teach or suggest all the claim limitations.

Appellant submits that the Examiner has failed to present a *prima facie* case of obviousness, because, at a minimum, the prior art references, when combined, do not teach or suggest every element of the claims. As discussed above in the context of the rejections of the claims under 35 U.S.C. § 102, both the Pease et al. reference and the Armistead et al. reference fail to disclose any compound having a moiety selected from the group consisting of –CN, -NC, $-NO_2$, fluoro, (C1-C3) haloalkyl, (C1-C3) perhaloalkyl, (C1-C3) haloalkoxy, (C1-C3) perhaloalkoxy, $-C(O)R^a$, $-C(O)OR^a$, $-C(O)CF_3$ and $-C(O)OCF_3$ at the 5-position of the central pyrimidine ring. Similarly, the Bradbury reference fails to disclose any compound simultaneously having (1) an R^2 moiety selected from the group consisting of phenyl mono-substituted at the 3- or 5-position with an R^8 group, phenyl di- or tri-substituted with one or more of the same or different R^8 group, and 5-15 membered heteroaryl optionally substituted with one or more of the same or different R^8 groups; (2) an R^4 moiety selected from the group consisting of phenyl substituted with one or more of the same or different R^8 groups and 5-15 membered heteroaryl optionally substituted with one or more of the same or different R^8 groups; and(3) an R^5 moiety selected from the group consisting of –CN, -NC, $-NO_2$, fluoro, (C1-C3) haloalkyl, (C1-C3) perhaloalkyl, (C1-C3) haloalkoxy, (C1-C3) perhaloalkoxy, $-C(O)R^a$, $-C(O)OR^a$, $-C(O)CF_3$ and $-C(O)OCF_3$. Nor does the reference provide any motivation to make or use a compound having such an R^2, R^4 and R^5. Applicant submits that the claims, as amended, are patentable over each of the cited reference and respectfully requests withdrawal of the rejection.

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

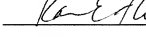
The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to

Deposit Account No. 50-0872. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 50-0872. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 50-0872.

Respectfully submitted,

Date 8 March 2007

By 

FOLEY & LARDNER LLP
Customer Number: 38706
Telephone: (650) 251-1115
Facsimile: (650) 856-3710

Karen E. Flick
Attorney for Applicant
Registration No. 44,111